

JEFFREY DEAN PADUAN

Naval Postgraduate School
Code OC/Pd
Monterey, California 93943
(831) 656-3350

265 Mar Vista Drive
Monterey
California 93940
(831) 647-8679

EDUCATION

Sept 1982 Oregon State University, College of Oceanography, Corvallis, Oregon.
Dec 1987 Ph.D. in Physical Oceanography, December 1987. Thesis advisor: Roland A. de Szoeke. Thesis title: Response to wind stress and heating in the north Pacific surface layer.
Sept 1978 University of Michigan, College of Engineering, Ann Arbor, Michigan
May 1982 B.S.E. in Engineering Science with honors, May 1982.

EXPERIENCE

July 1997 Associate Professor of Oceanography, Naval Postgraduate School, Monterey,
Present California; Adjunct Associate Professor, University of California Santa Cruz.
Instructor for graduate-level oceanography courses. Conducting research using satellite-tracked drifting buoys and shore-based HF radar.
July 1991 Assistant Professor of Oceanography, Naval Postgraduate School, Monterey,
June 1997 California.
Jan 1991 Assistant Research Oceanographer, Scripps Institution of Oceanography, La Jolla,
June 1991 California. Conducted research using satellite-tracked drifters to study the horizontal structure of temperature and current in the northeast Pacific Ocean. Served as Global Drifter Center manager for the World Ocean Circulation Experiment (WOCE).
Dec 1987 Postdoctoral Research Oceanographer, Scripps Institution of Oceanography, La
Jan 1991 Jolla, California. Conducted research using satellite-tracked drifters to study offshore-flowing, cold-water jets off the coast of California and horizontal current and temperature structure in the northeast Pacific Ocean.
Sept 1982 Graduate Research Assistant, Physical Oceanography, Oregon State University,
Dec 1987 Corvallis. Conducted research in air-sea interaction using upper-ocean measurements of currents and temperatures and surface meteorological observations. Presented results (oral and written) at internationally attended conferences. Participated in research cruises.
May 1980 Research Assistant, Great Lakes Environmental Research Laboratory, Ann Arbor,
Aug 1982 MI. Performed computer programming and field duties in support of research on the circulation of the Great Lakes and dispersion of oil and toxic chemicals.
Jan 1980 Research Assistant, Department of Atmospheric and Oceanic Sciences, University
May 1980 of Michigan. Assisted in data reduction of current meter records from Lake Erie surf zone.

AWARDS/NATIONAL COMMITTEES

Aug. 1997 Editor's Excellence in Reviewing Award, Journal Geophysical Research
Jan 1997 Appt., AMS Committee on Meteorology & Oceanography of the Coastal Zone
Oct 1994 Teaching Recognition Award, Naval Postgraduate School
April 1994 Research Recognition Award, Naval Postgraduate School
Dec 1986 Best Student Paper Award for Oceanography AGU Fall Meeting[†]

PUBLICATIONS IN REFEREED JOURNALS

- Brink, K.H., R.C. Beardsley, J.D. Paduan, R. Limeburner, M. Caruso, and J.G. Sires, 2000: A view of the 1993-1994 California Current based on surface drifters, RAFOS floats, and remotely sensed data. *J. Geophys. Res.*, **105**, 8575-8604.
- Fernandez, D.M., H.C. Graber, J.D. Paduan, and D.E. Barrick, 1997: Mapping wind direction with HF radar. *Oceanography*, **10**, 93-95.
- , L.A. Meadows, J.F. Vesecky, C.C. Teague, J.D. Paduan, and P. Hansen, 2001: Surface current measurements by HF radar in fresh water lakes. *J. Oceanic Engin.*, **25**, 458-471.
- Kelly, K.A., R.C. Beardsley, R. Limeburner, K.H. Brink, J.D. Paduan, and T.K. Chereskin, 1998: Variability of the near-surface eddy kinetic energy in the California Current based on altimetric, drifter, and moored current data. *J. Geophys. Res.*, **103**, 13067-13083.
- Lipphardt, B.L. Jr., A.D. Kirwan, Jr., C.E. Grosch, J.K. Lewis, and J.D. Paduan, 2000: Blending HF radar and model velocities in Monterey Bay through normal mode analysis. *J. Geophys. Res.*, **105**, 3425-3450.
- Niiler, P.P., J. Filloux, W.T. Liu, R.M. Samelson, J.D. Paduan, C.A. Paulson, 1993: Wind-forced variability of the deep eastern north Pacific: Theory and relationship to seafloor pressure and abyssal currents. *J. Geophys. Res.*, **98**, 22589-22602.
- , and J.D. Paduan, 1995: Wind-driven motions in the northeast Pacific as measured by Lagrangian drifters. *J. Phys. Oceanogr.*, **25**, 2583-2594.
- Laws, K. D.M. Fernandez, and J.D. Paduan, 2001: Simulation-Based Evaluations of HF Radar Ocean Current Algorithms. *J. Oceanic Engin.*, **25**, 481-491
- Paduan, J.D. and R.A. de Szoeke, 1986: Heat and Energy Balances in the Upper Ocean at 50° N, 140° W during November 1980 (STREX). *J. Phys. Oceanogr.*, **16**, 25-38.
- , —, and J.G. Richman, 1987: The Balances of Heat and Momentum at 33.5° N, 127° W in the Upper Ocean during MILDEX. *J. Geophys. Res.*, **93**, 8147-8160.
- , —, and R.A. Weller, 1989: Inertial Oscillations in the Upper Ocean during the Mixed Layer Dynamics Experiment (MILDEX). *J. Geophys. Res.*, **94**, 4835-4842.
- , and P.P. Niiler, 1990: A Lagrangian description of motion in northern California coastal transition filaments. *J. Geophys. Res.*, **95**, 18095-18109.
- , and P.P. Niiler, 1993: The structure of velocity and temperature in the northeast Pacific as measured with Lagrangian drifters in fall 1987. *J. Phys. Oceanogr.*, **23**, 585-600.
- , and L.K. Rosenfeld, 1996: Remotely sensed surface currents in Monterey Bay from shore-based HF radar (CODAR). *J. Geophys. Res.*, **101**, 20669-20686.
- , and M.S. Cook, 1997: Mapping surface currents in Monterey Bay with CODAR-type HF radar. *Oceanography*, **10**, 49-52.
- , and H.C. Graber, 1997: Introduction to high frequency radar: Reality and myth. *Oceanography*, **10**, 36-39.
- Petruncio, E.T., L.K. Rosenfeld, and J.D. Paduan, 1998: Observations of the internal tide in Monterey Submarine Canyon. *J. Phys. Oceanogr.*, **28**, 1873-1903.
- Shulman, I., C.-R. Wu, J.K. Lewis, J.D. Paduan, L.K. Rosenfeld, S.R. Ramp, M.S. Cook, J.C. Kindle, D.-S. Ko, 2000: Development of the high resolution, data assimilating numerical model of the Monterey Bay. In *Estuarine and Coastal Modeling*, Spaulding, M.L. and H. Lee Butler, eds., 980-994.

Zhou, M., J.D. Paduan, and P.P. Niiler, 2000: Surface currents in the Canary Basin from drifter observations. *J. Geophys Res.*, **105**, 21893-21911.

PUBLICATIONS IN PREPARATION

Petruncio, E.T., J.D. Paduan, and L.K. Rosenfeld, 2000: Numerical simulations of the internal tide in a submarine canyon. *Ocean Modelling*, Submitted.

PUBLISHED PROCEEDINGS/TECHNICAL REPORTS

- Barrick, D., R. Cheng, N. Garfield, J. Paduan, P. Lilleboe, J. Gartner, and L. Pederson, 2000: Toward bay/harbor circulation model improvement incorporating HF radar data based on SeaSonde deployments on San Francisco Bay. *Proceedings, IEEE OCEANS-2000*, 5 pp.
- Fernandez, D.M., and J.D. Paduan, 1996: Simultaneous CODAR and OSCAR Measurements of Ocean Surface Currents in Monterey Bay. *Proceedings, IEEE IGARSS '96*, Lincoln, Neb., vol. 3, 1746-1750.
- , J.F. Vesecky, C.C. Teague, J.D. Paduan, and K.E. Laws, 1998: Ship detection with high-frequency phased-array and direction-finding radar systems. *Proceedings, IEEE Inter. Geoscience and Remote Sensing Symposium*, Seattle, July 1998, paper A08-11.
- , K.E. Laws, and J.D. Paduan, 1999: High-Frequency Radar Simulations. *Proceedings of the IEEE Sixth Working Conference on Current Measurement*, 9-13.
- Laws, K.E., D.M. Fernandez, J.D. Paduan, C.C. Teague, and J.F. Vesecky, 1998: Simulation studies of errors in HF radar ocean surface current measurements. *Proceedings, IEEE Inter. Geoscience and Remote Sensing Symposium*, Seattle, July 1998, paper A08-9.
- Ly, L., P. Luong, J.D. Paduan, and D. Koracin, 1999: Response of the Monterey Bay region to wind forcing by an atmospheric model. *Proceedings, American Meteorological Society's Third Conference on Coastal Atmospheric and Oceanic Prediction and Processes*, New Orleans, LA, 3-5 November, pg. 76-79.
- , W.P. O'Connor, and J.D. Paduan, 2000: A barotropic simulation of semi-diurnal and diurnal tides for the Monterey Bay region. in *Hydraulic Engineering Software VIII*, Blain, W.R. and C.A. Brebbia, Ed., WIT Press, 155-169.
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- Niiler, P.P., J.D. Paduan, A.L. Sybrandy, and L. Sombardier, 1991: The WOCE/TOGA Lagrangian surface drifter. *Proceedings, IEEE OCEANS-91*, 5 pp.
- Paduan, J.D., 1994: Remotely sensed surface currents in Monterey Bay from multiple HF radar installations. *Proceedings, IEEE OCEANS-94*, Vol. III, 5-10.
- , D. Barrick, D. Fernandez, Z. Hallock, and C. Teague, 2001: Improving the accuracy of coastal HF radar current mapping. *Hydro International*, **5**, 26-29.
- , E.T. Petruncio, D.E. Barrick, and B.J. Lipa, 1995: Surface currents within and offshore of Monterey Bay as mapped by a multiple-site HF radar (CODAR) network. *Proceedings of the IEEE Fifth Working Conference on Current Measurement*, 137-142.
- , M. Zhou, and P.P. Niiler, 1995: Surface currents in the Canary Basin from drifter observations. *International WOCE Newsletter*, #20, 13-15.

- , M.H. Pickett, and M.S. Cook, 1996: Comparison of drifting buoy and HF radar (CODAR) ocean surface currents in Monterey Bay, CA. *NOAA Tech. Rep.*, MBNMS 96-01, 35pp.
- , M.S. Cook, and D.M. Fernandez, 1997: Two-dimensional diurnal to monthly period surface currents in Monterey Bay from CODAR-type HF radar. *Proceedings, IEEE Inter. Geoscience and Remote Sensing Symposium*, Singapore, August 1997, pp. 1814-1816.
- , R. Delgado, J.F. Vesecky, Y. Fernandez, J. Diada, and C.C. Teague, 1999: Mapping Coastal Winds with HF Radar. *Proceedings of the IEEE Sixth Working Conference on Current Measurement*, 28-32.
- , L.K. Rosenfeld, S.R. Ramp, F. Chavez, C.S. Chiu, and C.A. Collins, 1999: Development and maintenance of the ICON observing system in Monterey Bay. *Proceedings, American Meteorological Society's Third Conference on Coastal Atmospheric and Oceanic Prediction and Processes*, New Orleans, LA, 3-5 November, pg. 226-231.
- Ramp, S.R., D.E. Barrick, L.A. Pederson, J.C. Lee, J.D. Paduan, and I. Shulman, 2001: Recent advances in coastal HF radars with potential application to the Asian marginal seas. *Proceedings, 11th PAMS/JECSS Workshop*, 11-13 April, Cheju, Korea.
- Rosenfeld, L.K., J.D. Paduan, E.T. Petruncio, and J.E. Goncalves, 1999: Numerical simulations and observations of the internal tide in a submarine canyon. *Proceedings, 'Aha Huliko'a Hawaiian Winter Workshop*, University of Hawaii at Manoa, 19-22 January, pg 63-71.
- Shulman, I., C.-R. Wu, J.K. Lewis, J.D. Paduan, L.K. Rosenfeld, S.R. Ramp, M.S. Cook, J.C. Kindle, and D.-S. Ko, 1999: Development of the high resolution, data assimilating numerical model of the Monterey Bay. *Proceedings, American Meteorological Society's Third Conference on Coastal Atmospheric and Oceanic Prediction and Processes*, New Orleans, LA, 3-5 November, pg. 232-235.
- Teague, C.C., D.M. Fernandez, K.E. Laws, J.D. Paduan, and J.F. Vesecky, 1998: Comparison of multifrequency phased-array and direction-finding HF radar systems during COPE-3. *Proceedings, IEEE Inter. Geoscience and Remote Sensing Symposium*, Seattle, July 1998, paper A08-10.
- Vesecky, J., C. Teague, D. Fernandez, J. Paduan, J. Daida, R. Onstott, K. Laws, and P. Hansen, 1998: Coastal surface currents with HF radar. *Backscatter*, Alliance for Marine Remote Sensing Association, August, 12-20.
- , L.S. Meadows, J.M. Daida, P.E. Hansen, C.C. Teague, D.M. Fernandez, and J.D. Paduan, 1999: Surface Current Measurements by HF Radar over Fresh Water at Lake Michigan and Lake Tahoe. *Proceedings of the IEEE Sixth Working Conference on Current Measurement*, 33-37.

PUBLISHED ABSTRACTS

- Cook, M.S., J.D. Paduan, P.M. Kosro, and J.A. Barth, 1994: Drifting buoy observations of eddies in the eastern boundary current. *Transactions, American Geophysical Union*, **75**, 151.
- de Szoeke, R.A. and J. D. Paduan, 1985: Heat and Energy Balances in the Upper Ocean during STREX. Abstract M6-13, IAMAP/IAPSO Joint Assembly, Honolulu, Hawaii.
- Fernandez, D.M., L.A. Meadows, C.C. teague, J.F. Vesecky, and J.D. Paduan, 2000: High-frequency radar measurements of surface currents in fresh-water lakes. *Transactions, American Geophysical Union*, **80**, OS75.
- Flynn, K.M., R.A. Maffione, F. P. Chavez, S.R. Ramp, J.D. Paduan, L.K. Rosenfeld, and C.A. Collins, 2000: Optical time-series data from the Monterey Bay Innovative Coastal-Ocean Observing Network (ICON). *Transactions, American Geophysical Union*, **80**, OS203.

- Foster, M.D., C. Wash, J.D. Paduan, and L.K. Rosenfeld, 1994: Evolution of diurnal surface winds and CODAR-derived surface currents for Monterey Bay. *Transactions, American Geophysical Union*, **75**, 52-53.
- Kelly, K.A., R.C. Beardsley, R. Limeburner, and J.D. Paduan, 1996: A comparison of Topex/Poseidon altimeter data and near-surface drifters in the California Current. *Transactions, American Geophysical Union*, **76**, supp., 131.
- Kosro, P.M., J.D. Paduan, and L. Washburn, 2000: Time-series mapping of currents in the coastal ocean. *Transactions, American Geophysical Union*, **81**, F661.
- Le, Ngoc Ly, P. Luong, J.D. Paduan, 1998: A variable-resolution, 3-D circulation model for the Monterey Bay region and its summer simulations. *Transactions, American Geophysical Union*, **79**, F406.
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- Lemon, M.R., J.L. McClean, and J.D. Paduan, 1996: Comparison of Los Alamos National Laboratory (POP) 1/6-degree model fields with Pacific surface drifter measurements. *Transactions, American Geophysical Union*, **77**, F367-368.
- Lipphardt, B.L., A.D. Kirwan, C.E. Grosch, J.D. Lewis, and J.D. Paduan, 1998: Mapping the surface velocity field in Monterey Bay. *Transactions, American Geophysical Union*, **79**, 22.
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- , —, —, and —, 2001: Characteristics of surface velocities in Monterey Bay from normal mode analysis. *Transactions, American Geophysical Union*, **82**, S23.
- Limeburner, R., K.A. Kelly, R.C. Beardsley, K.H. Brink, J.D. Paduan, and T.K. Chereskin, 1996: Variability of the near-surface eddy kinetic energy in the California Current based on altimetric, drifter and moored current data. *Transactions, American Geophysical Union*, **77**, F368.
- Paduan, J.D., 2000: An Innovative Coastal-Ocean Observing Network (ICON). *Transactions, American Geophysical Union*, **80**, OS203.
- , and M.S. Cook, 1994: Remotely sensed, two-dimensional surface currents in Monterey Bay from HF radar (CODAR) and satellite-tracked drifting buoys. *Transactions, American Geophysical Union*, **75**, 180.
- , and R.A. de Szoeke, 1987: Heat, Momentum, and Inertial Currents in the Upper Ocean during MILDEX. Abstract OPS3-16, IUGG XIX General Assembly, Vancouver, B.C.
- , and —, 1983: Heat and Energy Balances in the Upper Ocean during STREX. *Transactions, American Geophysical Union*, **64**, 740.
- , —, and J.G. Richman, 1985: Upper Ocean Heat and Momentum Budgets from a Drifting Buoy during the Mixed Layer Dynamics Experiment (MILDEX). Abstract O3-12, IAMAP/IAPSO Joint Assembly, Honolulu, Hawaii.
- [†]—, —, and R.A. Weller, 1986: Inertial Oscillations in the Upper Ocean during the Mixed Layer Dynamics Experiment (MILDEX). *Transactions, American Geophysical Union*, **67**, 1034.
- , D.M. Fernandez, C.C. Teague, J.F. Vesecky, and K. Laws, 1998: Surface currents along the continental shelf south of Chesapeake Bay from HF radar. *Transactions, American Geophysical Union*, **79**, 149.

- , and T.C. Neal, 1992: Evaluation of Remotely-Sensed Surface Currents in Monterey Bay from Coastal Ocean Dynamics Applications Radar (CODAR). *Trans. American Geophys. Union*, **73**, 315-316.
- , and P.P. Niiler, 1988: Analysis of Drifter Trajectories during the Coastal Transition Zone Experiment, May 1987. *Trans. American Geophys. Union*, **69**, 1260.
- , and P.P. Niiler, 1990: Upper-ocean velocity and heat advection measurements in the northeast Pacific from drifters during OCEAN STORMS. *Trans. American Geophys. Union*, **71**, 73.
- , J.G. Richman, and R.A. de Szoeke, 1984: Estimates of the Upper-Ocean Heat Budget from a Drifting Buoy during MILDEX. *Transactions, American Geo-Physical Union*, **65**, 942.
- , L.K. Rosenfeld, and M.S. Cook, 1996: Diurnal surface current fluctuations in Monterey Bay from CODAR-type HF radar. *Transactions, American Geophysical Union*, **77**, F386.
- Petruncio, E.T., J.D. Paduan, and L.K. Rosenfeld, 1994: Characterization of tidal currents in Monterey Bay from remote and in situ measurements. *Transactions, American Geophysical Union*, **75**, 180.
- , —, and —, 1994: Baroclinic tidal currents in Monterey Submarine Canyon. *Transactions, American Geophysical Union*, **75**, supp., 336.
- , L.K. Rosenfeld, and J.D. Paduan, 1996: Internal tide generation and propagation in a submarine canyon. *Transactions, American Geophysical Union*, **76**, supp., 83.
- Shulman, I., C.-R. Wu, J.D. Lewis, J.D. Paduan, L.K. Rosenfeld, S.R. Ramp, J.C. Kindle, and D.-S. Ko, 2000: Development of the high resolution data assimilating model of the Monterey Bay. *Transactions, American Geophysical Union*, **80**, OS203.
- , —, —, —, —, J. Kindle, C. Collins, S. Ramp, 2000: High resolution modeling and data assimilation in the Monterey Bay area. *Transactions, American Geophysical Union*, **81**, F765.
- Teague, C.C., J.F. Vesecky, J.D. Paduan, D.M. Fernandez, and R.G. Onstott, 1998: Multi-frequency and Codar-type HF radar observations of surface currents in Monterey Bay. *Transactions, American Geophysical Union*, **79**, 38.
- , D.M. Fernandez, K.E. Laws, J.D. Paduan, J.F. Vesecky, 1998: Multifrequency phased-array and direction-finding HF radar system observations during COPE-3. *Transactions, American Geophysical Union*, **79**, S169.
- Vesecky, J.F., C.C. Teague, J.D. Paduan, D.M. Fernandez, K.E. Laws, Z.R. Hallock, and L.A. Meadows, 1998: Observations of air-sea dynamics by multifrequency HF radar and other environmental sensors outside the mouth of Chesapeake Bay during the COPE-3 Experiment of October-November 1997. *Transactions, American Geophysical Union*, **79**, S169.
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- Wu, C.-R., I. Shulman, J. Lewis, J. Paduan, L. Rosenfeld, 2000: Surface current data assimilation in the Monterey Bay area. *Transactions, American Geophysical Union*, **81**, F765.
- Zhou, M., P.P. Niiler, and J.D. Paduan, 1995: Statistical properties of the surface currents in the Canary Basin observed by SVP drifters. *Proceedings, XXI General Assembly, Inter. Assoc. for the Physical Sciences of the Oceans*, **19**, 136.